



**QUEEN'S
UNIVERSITY
BELFAST**

Beyond Feasting: Consumption and Lifestyle amongst the Invisible Etruscans

Malone, C., Stoddart, S., Ceccarelli, L., Cenciaioli, L., Duff, P., McCormick, F., Morales, J., Armstrong, S., Bates, J., Bennett, J., Cameron, J., Cifani, G., Cohen, S., Foley, T., Fulminante, F., Hill, H., Mattacchioni, L., Neil, S., Rosatelli, A., ... Volhard-Dearman, S. (2014). Beyond Feasting: Consumption and Lifestyle amongst the Invisible Etruscans. In *Living in the Landscape: Essays in Honour of Graeme Barker* (pp. 257-266). (McDONALD INSTITUTE MONOGRAPHS). McDonald Institute for Archaeological Research Cambridge.
<http://www.mcdonald.cam.ac.uk/publications/mcd-books/mcd-booksbydate#2014>

Published in:

Living in the Landscape: Essays in Honour of Graeme Barker

Document Version:

Publisher's PDF, also known as Version of record

Queen's University Belfast - Research Portal:

[Link to publication record in Queen's University Belfast Research Portal](#)

Publisher rights

Copyright 2014 McDonald Institute for Archaeological Research
This work is made available online in accordance with the publisher's policies.

General rights

Copyright for the publications made accessible via the Queen's University Belfast Research Portal is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The Research Portal is Queen's institutional repository that provides access to Queen's research output. Every effort has been made to ensure that content in the Research Portal does not infringe any person's rights, or applicable UK laws. If you discover content in the Research Portal that you believe breaches copyright or violates any law, please contact openaccess@qub.ac.uk.

Chapter 17

Beyond Feasting: Consumption and Life-style amongst the Invisible Etruscans

Caroline Malone, Simon Stoddart, Letizia Ceccarelli,
Luana Cenciaioli, Patricia Duff, Finbar McCormick, Jacob Morales,
Stephen Armstrong, Jennifer Bates, Jeremy Bennett, Jamie Cameron,
Gabriele Cifani, Sheira Cohen, Tiomoid Foley, Francesca Fulminante,
Hettie Hill, Laura Mattacchioni, Skylar Neil, Antonio Rosatelli,
David Redhouse and Saskia Volhard-Dearman

Introduction

This chapter seeks to echo two of Graeme Barker's many achievements: bringing together an interdisciplinary team of scholars to focus on a set of problems and understanding the workings of those Etruscans who had a less visible face on the world. Recent work on the frontier between Etruscan Perugia and Umbrian Gubbio has uncovered a small village (Stoddart *et al.* 2012) which has been studied by an interdisciplinary team to uncover the economic infrastructure that underwrote the Etruscan achievement. Here we present a short initial critique of current approaches to the Etruscans, echoing Graeme Barker's article in *Antiquity* (Barker 1988), followed by the initial impressions of the village of Col di Marzo, echoing his article in *Studi Etruschi* on a rural settlement from the Tuscania survey (Grant *et al.* 1993). Mirroring Graeme Barker's work, we have involved the entire team in this presentation, encouraging scholars particularly at an early stage of their career to share their ideas, although the article has been principally written by the second author. We also present some elements of local economic ethnography which echo his Cicolano ethnography of shepherding practices in the Abruzzo (Barker & Grant 1991). The work of Graeme Barker has inspired much of our work, to combine field survey with excavation, in a way that brings together the right balance of depth and breadth, of landscape and stratigraphy, in the region where four of us (Barker, Cifani, Malone and Stoddart) undertook our first doctoral work and

where one of us (Luana Cenciaioli) presides over the rich archaeology and another is guardian of its setting (Antonio Rosatelli).

The visible and invisible Etruscans

As Graeme Barker and Andrea Carandini have pointed out, most Etruscan research has concentrated on the elite or, at the very least, on the various grades of inorganic material culture produced by the Etruscans (Barker 1988; Carandini 1985). The invisible Etruscans, those that sustained this elite activity, have remained largely silent, simply because their relatively uninteresting offerings are unsuitable for beautiful museum collections where the object can speak for itself, be compared with other similar objects or be enriched by various grades of literary output. The ostentatious funerary display of the Etruscans satisfied interest for many decades. More recently, sanctuaries and urban settlements, although often offering a rather more complex stratigraphic record, have been investigated. Great strides have been made in the sanctuaries of Gravisca and Pyrgi (Colonna 1988–9; Torelli 1977), showing the intense entanglement of the Etruscans with other Mediterranean worlds. Similarly, a number of Etruscan cities, most notably Veii (Bartoloni 2009), Roselle (Bartoloni & Bocci Pacini 2002), Cerveteri (Maggiani & Rizzo 2005) and, above all, Acquarossa (Wikander & Roos 1986) and Tarquinia (Bonghi Jovino 2010) have been studied to a level that is beginning to provide a better knowledge of the living conditions of the elite.

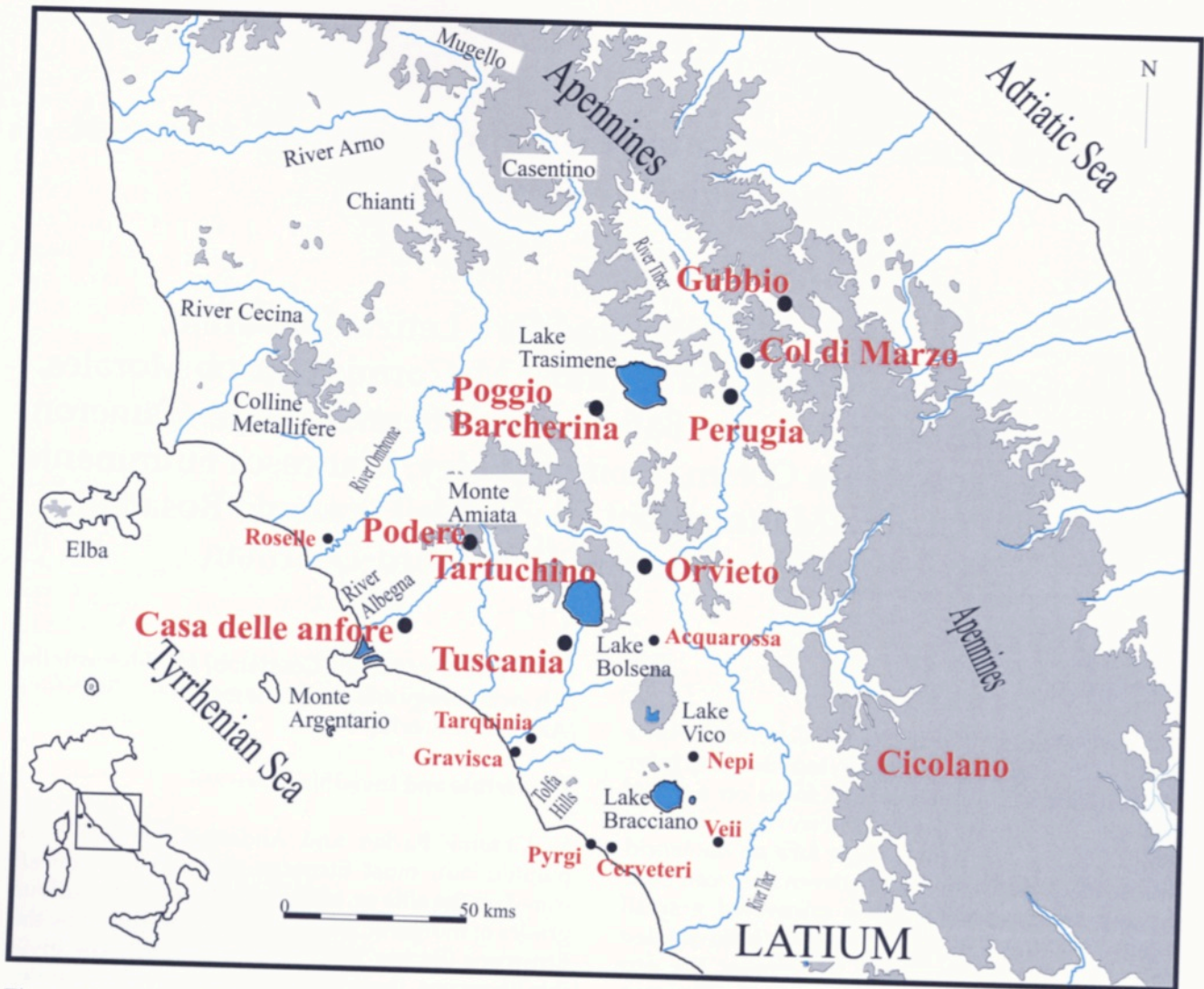


Figure 17.1. Map of Etruria showing principal sites mentioned in the text. (Illustration: S. Stoddart.)

Work at Acquarossa has for some 40 years and Tarquinia for some 30 provided the best current understanding of the lived experiences of the Etruscan city dweller. Against this must be set the fact that much of the work at Tarquinia has been concentrated in zones of ritual interest, which do not convey much about the normality of Etruscan life. Nevertheless, the faunal (NISP = 482) and botanical (NISP = 216) studies from this site, albeit in low numbers for northern Europe, begin to give an understanding of the range of animals (pig, cattle, sheep, but also deer) and plants (barley, various wheats, various legumes, collected fruits and fodder crops) that sustained the Etruscan economy. For this reason, Acquarossa, a site studied much earlier but by a team interested in these underlying economic questions, remains the best model for nucleated settlements. This is because quite a detailed picture

emerges of house structures built around courtyards. Cooking stands (Scheffer 1981) were plotted spatially to convey a picture of domestic duties both outside and inside the buildings, and some sense of consumption is conveyed by limited faunal studies, although no botanical remains appear to have been recovered.

The rural dimension of Etruscan life has been relatively well investigated by surface survey. There are major, at least partly published, surveys, around the cities of Veii (Patterson *et al.* 2004; Potter 1979), Cerveteri (Ene 2001) and Tuscania (Barker & Rasmussen 1988). The state of play for excavation of rural sites is much less advanced and, although much can be learned from the surface, the stratigraphically defined spatial dimension is crucial, as the few exercises investigating the connection between surface and subsurface have shown. Therefore, it is disap-

pointing to find that at least one prime candidate is now considered a sanctuary by the leading scholars on the basis of inscriptional evidence, and even before this revision of the evidence there was only ceramic evidence from the site (Murray Threipland & Torelli 1970; Torelli 2001). The site of Podere Tartucchino has provided good spatial evidence of a two phase farmstead of the sixth century BC and clear data on wine production from the site (Perkins & Attolini 1992). The Tuscania farmstead excavated by Graeme Barker (Grant *et al.* 1993), in spite of its poor state of preservation, gives a good picture of the type of sixth to third century BC material culture to be found at the rural level: *buccheri* (including a strainer for wine?), storage *dolia* and transport amphorae, weaving (one loom weight), whetstones and grinders. The Casa delle Anfore (Zifferero *et al.* 2009) from the Marsiliana d'Albegna area has also provided good evidence of spatial distribution of material culture in a relatively rural context, but not, apparently, studies of organic remains. The very late Hellenistic site of Poggio Barcherina from the Chianciano Terme area (Paolucci 1993) has produced interesting agricultural facilities including a wine-making system and loom weights, but apparently no systematic study of the organic remains, apart from the observation of grape pips. What is missing from these examples is an integrated understanding of living communities where the spatial distribution of material culture can be combined with other types of consumption.

Sampling the Etruscan economy

A series of problems have faced the study of the underlying Etruscan economy. The key difficulty, a lack of interest from scholars primarily interested in artistic, cultural and text-led historical questions, has already been emphasized. In tandem with this form of research design, very few programmes have been implemented to sample systematically and exhaustively the sediments that envelop any archaeological deposit. In two primary instances where this has been undertaken (Podere Tartucchino and Tuscania), the conditions of site formation have not been entirely favourable. In southern Etruria, the volcanic sediments have an acidity that militates against the preservation of bone. At best, one can hope for carbonization or mineralization of seeds (and possibly bones) to resist the damaging chemical conditions. The consequence is that, however intensive the efforts, the results can only be partial. At Tuscania, all organic deposits had been destroyed by the aggressive conditions of the sediments. At Podere Tartucchino, all animal bone had been destroyed, and so only a one-sided vision from carbonized seeds

was available. At Tarquinia, the particular conditions of repeated ritual deposits and mineralization have allowed more detailed recovery. The situation in South Etruria does, however, respond to persistent application of systematic sampling, as the results from Nepi (di Gennaro *et al.* 2002) and more recent results from Veii (De Grossi Mazzorin & Cucinotta 2009) convincingly demonstrate. Nevertheless, this has yet to be applied repeatedly to the rural context, where shallower stratigraphy can in any case lead to poorer preservation. The future lies in the systematic and, for some, tedious application of repeated sampling of recorded sample sizes of sediment from a wide range of complementary techniques. The future also lies in the sampling of deposits that respond well to such approaches: hearths, floors, courtyards, drains and, ideally, middens.

The situation in Northern Etruria and the borders with Umbria is better for a simple geological reason, namely that the area is mainly out of the reach of the more aggressive volcanic sediments. The limestone areas, largely in the uplands, are particularly conducive to good preservation (McVicar *et al.* 1994), but deposits on the Plio-Pleistocene clays and the mixed interbedded calcareous marls and sandstones are also responsive to systematic approaches to recovery of evidence. One disadvantage of the area is that rural settlement was relatively late in its development, most notably in northeast Etruria and Umbria; as a consequence, there are no precise, politically situated, comparisons with the sixth-century rural settlements of South Etruria. Some level of nucleation was present until a very late date in the sequence, particularly in the northeastern reaches of Etruria within the territory of Perugia. For this reason, the subject of our analysis is a small defended village of less than two hectares in size, and not a simple farmstead. This site has comparisons with sites such as Poggio Civitella (Donati & Cappuccini 2008) and Col di Mori (Bonomi Ponzi 2010) which have not received systematic interdisciplinary study, although the slightly different, that is more ritualized, site of Poggio Colla is producing some very interesting results which permit comparison (Trentacoste 2013).

The site of Col di Marzo

The site of Col di Marzo was first identified as a settlement by Maurizio Matteini Chiari in the late 1970s (Matteini Chiari 1979–80). A further collection of material was organized by Gabriele Cifani in 2009 and a systematic plan made of the site in 2010 as part of a regional survey of this frontier area of the territory of Perugia by the current team. Excavation has now

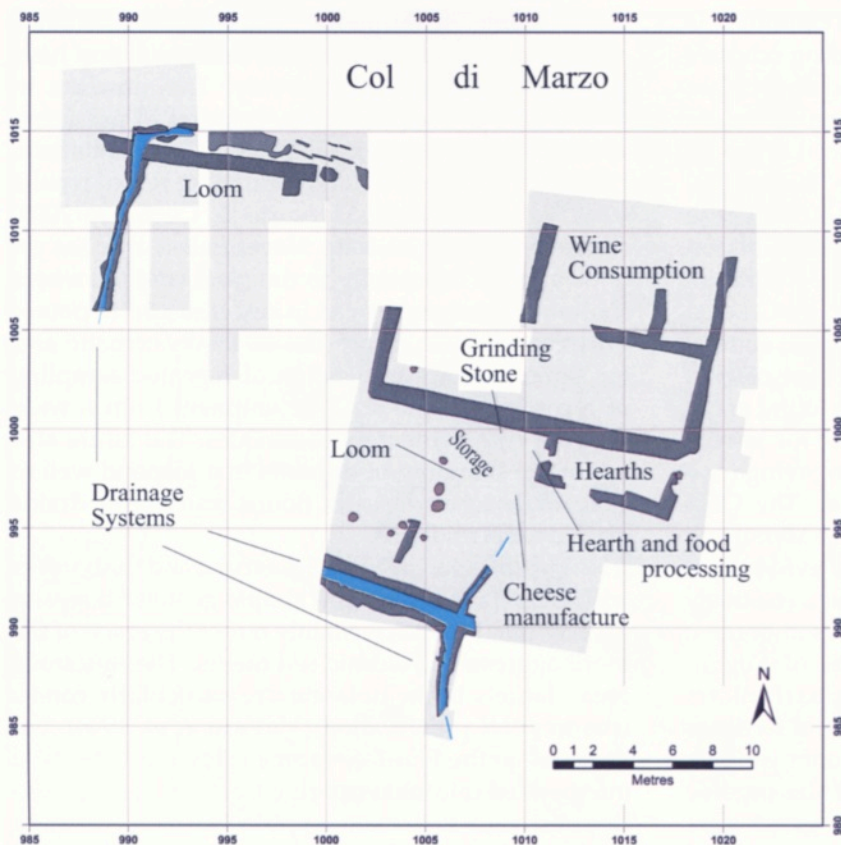


Figure 17.2. Plan of Col di Marzo.
(Illustration: S. Stoddart.)

been undertaken over a period of three years (2011–13), directed by Simon Stoddart and Caroline Malone, gradually uncovering the spatial organization of a small Etruscan village, exceptional not by its existence but by the systematic, interdisciplinary investigation of the type so often implemented by Graeme Barker in his projects.

The site occupies a small hill of 645 m, accompanied by a series of natural and modified terraces, most prominently on the south side. So far only the summit and a first, relatively flat terrace below this summit to the south have been investigated by excavation. In addition, geophysical survey (Magnetometer and Ground Penetrating Radar) of the first southern and first western terrace has been undertaken. The site appears to have been first occupied in the Final Bronze Age (c. 1200–1000 BC), based on evidence found both on the summit and in a possible modest ditch surrounding the upper terrace of the settlement. It appears to have been reoccupied in the sixth century BC, but so far deposits of this date have only been found *in situ* in two limited areas of the upper terrace, where evidence seems to constitute ovoid domestic structures. However, the data remain fragmentary. It is suspected that the nucleus of the earlier settlement, and perhaps the political centre of the village,

lie in unexcavated, broken, currently wooded ground between the summit and the first southern terrace. Some masonry emerging from the undergrowth may, or may not, belong to this phase.

The main extant and investigated phase of the settlement belongs to the period between the fourth and third centuries BC; preliminary study of the ceramics suggests abandonment of the main buildings in about 270 BC, coinciding with Roman-derived political interference in the area. Questions of identity are much more complex. The excavators consider the settlement to be a forward position of Etruscan expansion, intervisible with both Perugia and the nearer, and much smaller, nucleated Etruscan settlement of Civitella Benazzzone, which can be defined as Etruscan by the presence of at least one Etruscan inscription. Any potential connection with Gubbio, the Umbrian centre to the north, is separated by the dead ground of invisibility and by the fact that the Iguvine Tables, that describe the confines of Gubbio, seem to suggest a much more localized preoccupation in terms of territory. However, at least one scholar (Bonomi Ponzi, pers. comm.) considers a site such as Col di Marzo to be Umbrian, defending the large territory of upland Umbria from the Etruscans, and it is indeed true that the visible defences of the site are westwards and

south towards the Etruscan territories. The upper south terrace is naturally defended to the south by a steep rock face some 2 m in height in places. The terrace was bolstered on the upper face by an embankment, at least in some parts of its circumference, and perhaps by a small ditch and even a palisade. Internally, there appears to have been a very much more substantial ditch that was extensively remodelled when a formal, largely rectilinear range of terraces and aligned houses were placed above.

The main settlement so far uncovered consists of two sets of parallel terrace walls running approximately east-west at the upper end and in the middle of the terrace. Open courtyards, cobbled yards and roofed houses were ranged against these terraces, and care was taken to cope with the rainwater runoff that resulted from this arrangement. Well-constructed, stone-lined north-south drains, with some considerable drop in level over their length, carried the water towards the southern edge of the terrace, and appear to have been well maintained and cleared. East-west drains had very little runoff and appear to have accumulated quantities of organic (carbonized seeds and bones) and inorganic (tile and pottery) refuse, providing a soakaway between structures. This arrangement appears to have kept the drainage in equilibrium, providing an appropriate level of runoff and control of flooding from the major storms and flash floods that are a feature of the foothills of the central Apennines.

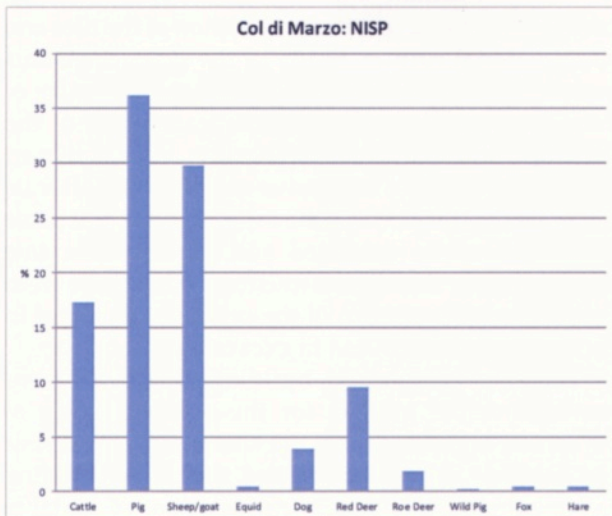
Building construction can be appreciated in some detail from the excavations bordering the southern terrace wall, where the stratigraphy was well preserved under tile collapse and, because of the lie of the land, a hollow above a preceding ditch that protected the area against one historically known phase of ploughing. In common with the evidence from Acquarossa of an earlier date, the buildings were generally constructed on drystone foundations. In the case of Col di Marzo, the northern terrace wall was quite substantial, whereas the southern limits of buildings were either supported on less substantial walls or on posts, sometimes placed in postholes and sometimes on stone pilaster bases. Walls of wood, wattle and daub were placed on these dry foundations and protected from the elements by heavy overhanging roofs composed of curved *coppi* and flat *embrici*. In addition, we have evidence for at least one smoke-hole tile, found above a hearth in one of the buildings, and likely chimney tiles elsewhere as well. The tile collapse appears to have survived very substantially intact from a complete roof, many tiles being found in the position where they had fallen. We can make an estimate of the scale of at least one roof from the weight and number of tile fragments present, although the *coppo* (curved tile) at c. 1 kg was

very much lighter than the *embrico* (flat tile) at c. 11 kg. We can also calculate some aspects of the depositional process from the level of fragmentation of the tiles and other material culture. Study of the numerous nails associated with the buildings suggests that many of these were employed within the framework of the structure, and that the structure was, at least in part, dismantled in order to recover major beams after its collapse. The treatment of the nails suggests that some were deliberately extracted and others made safe after insertion; these assessments can be made from a carpenter's perception of the profile of the bend in the nails when recovered in excavation.

The well-preserved building structures have provided fertile ground for the understanding of the spatial organization of the site in terms of layout and possible activity areas, and this understanding has been furthered by the employment of suitable methods of recovery. All small finds were plotted to the nearest centimetre employing a total station, and the recovery of metal objects was aided by the use of a metal detector. In well-preserved and contained areas, all material was sampled by the metre square, and more than 4000 litres of sediment were fine-sieved and floated in order to recover carbonized seeds, landsnails and microfauna. Samples were taken for phytoliths. Fifteen micromorphological samples were taken to examine the processes of deposition and use which are less visible to the human eye.

The initial results suggest that wheat and grape dominated the local diet, supplemented by some meat, the protein and marrow of which was extracted to the maximum by humans and dogs alike. The most numerous and frequent macro-botanical remains are currently wheat and grapes, but this food was supplemented by other cereals (barley and foxtail millet), a range of legumes (peas, lentils and fava beans) and olives. Weeds were also present, but in low densities, suggesting that most of contexts were composed of table waste and kitchen residues. General absence of evidence for cereal processing in the contexts examined so far indicates that this task was carried out in other locations, possibly in the fields. Meat appears to have been a relatively modest part of the diet, headed by pig and ovicaprid products. Both would have benefitted substantially from the mixed oak woodland and open pasture occurring on these modest hills. The meat from these animals was supplemented by cattle, but also more interestingly by deer, fox and hare. Some of the prime cuts of meat appear to have been provided by deer, whereas the food remains from the domestic species appear to have been from less meat-rich parts of the body, such as the head and the feet. Furthermore, many bones were split to access the

A



B

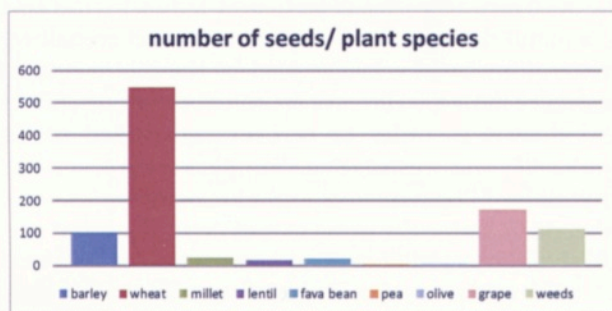


Figure 17.3. Graphs of faunal and floral remains from Col di Marzo. (A) Fauna (F. McCormick). (B) Flora (J. Morales).

marrow, and there is additional evidence of gnawing by domestic dogs. One detail is that piglets of a very few days old were consumed to supplement the diet. The diet does not appear to be the one of luxurious feasting that we see typically depicted in the cemeteries of Etruria, including on the famous Sperandio sarcophagus, found only a few kilometres away in Perugia. We should instead envisage a considerable consumption of soups to boil down the less prized offcuts of meat, sustained by large quantities of grain and various pulses, ameliorated by the consumption of fresh grapes, raisins (possibly wine) and olives, and the occasional freshwater mussel. The presence of drinking vessels and part of a bronze strainer makes it highly likely that wine was consumed on the site, even if not produced in one of the areas so far excavated.

Life at Col di Marzo was, however, not purely at a subsistence level, even if one can imagine the

aristocratic powers of Perugia extracting their tribute via the better cuts of meat from the limits of their territory. There is clear evidence of secondary products extraction from the animals of the region. Small concentrations of ceramic sieves point to the production of cheese, using a technology of slowly heating milk for cheese and whey production, a method understood since the Bronze Age in central Italy. Furthermore the wool of the same animals was employed for the weaving of textiles as shown by concentrations of two types of loom weight (one tronco-pyramidal and the other in the form of a very substantial cotton reel), smaller *rocchetti* (or cotton reels) and spindle whorls. Deer antlers were employed to make handles for metal instruments and worked on the site. There may be some evidence for metal working, including rock-cut flues, scorched rock, metal waste, in association with the bone-antler working. All this evidence is perhaps an indication of domestic-level metal work, mending tools and making basic equipment and nails.

Although the domestic ceramics were not of the quality desired by most Etruscan museums, they did include at least some figurative red-figure wares, including one modest depiction of a woman, and these would have added some grace to the drinking rituals of these diffident Etruscans. Two schematic figurines found in the upper part of the site may be of a slightly earlier date but, if contemporary, suggest the presence of rituals embedded in daily life. There is even an indication from two graffito letters on one vessel that some of the inhabitants might have had a slight knowledge of the Etruscan alphabet. Moreover, there is modest evidence of the accumulation of wealth in the form of so called *aes rude* or scraps of bronze which, although few in number, do seem to approximate to two calibrations of weight, suggesting an organized mode of exchange.

A striking aspect of Etruscan domestic life was its spatial patterning. The structures of the Col di Marzo settlement were deliberately ranged towards the south and east, benefiting from light and (in winter) the warmth of the sun, protected from northerly storms. The excavations have detected distinct zones devoted to weaving, cooking (both under cover and in open spaces), storage (in large *dolia*), grinding (on a grinding stone or in a mortarium), antler working, metal working, cheese making and wine drinking (at least indicated by the ceramic vessels). Open uncovered spaces, some on cobbled surfaces and some on levelled calcareous clay surfaces, alternated with roofed and probably dark areas where other activities took place. A sense of intimate and public spaces begins to emerge, although the main work so far seems to be in the artisan section of the settlement. Further work needs to be

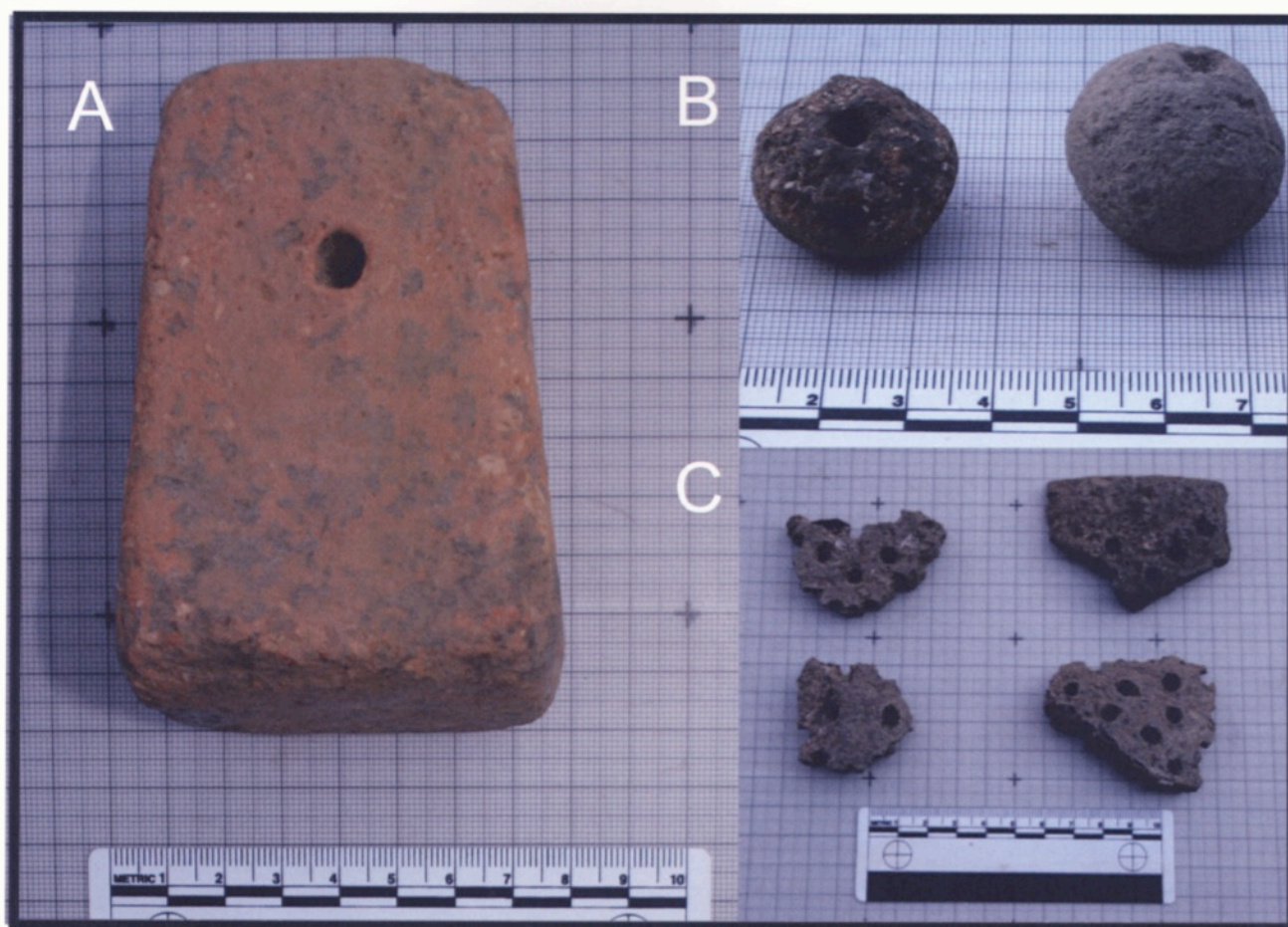


Figure 17.4. *The material culture of secondary production. (A) loom weight; (B) spindle whorls; (C) ceramic sieves. (Photographs: S. Stoddart.)*

undertaken in order to detect more residential quarters, the full extent of the settlement and its likely population, although perhaps our modern sense of categorization should not be so radically imposed on the evidence.

Ethnographic continuity?

The local estate of the Gaslini Foundation (a medical charity based in Genoa) was originally bought by a monopolist of sunflower-oil production of the 1930s. Today agriculture has changed radically as the estate seeks to diversify, not only into olive-oil production but into cultural tourism, of which our sponsored project is part. In addition, the estate has brought in a Sardinian shepherd to live in the traditional farmhouse located just below the site. A brief ethnographic study of this man's economic practices reveals, as one would imagine, both continuities and differences. His main animal rearing is pig and sheep, and the main output of his sheep is for the production of cheese,

both fresh ricotta and more mature pecorino. Until struck by ill health, he managed as many as 500 sheep, milked for their cheese between December and August. At the beginning of the season, cheese production is a daily activity, although the following is a brief description of the much reduced production in the summer months from his current flock of 180 sheep. One can read between the lines of the ethnographic description that follows the similarities and differences of past and modern realities, recalling the details of practice that we can forget as archaeologists. The more contemporary ethnographies by Roman authors lack this level of detail, covering generalities that are not specific to the precise location.

The milk is transferred to a cauldron or vat (*pentola*) for heating to 35°C when 7 dessert spoons of Cagliodorio, *chimodina*, diluted in half a litre of water, are added as a fermenting agent. In earlier times, this would have been rennet, by-products of the sheep's stomach, but EU controls forbid these earlier prac-

tices and require standardization. Francesco stirs the milk with a multi-pronged instrument (*agitatore*) for a few minutes; he then leaves the mix for 30 minutes while he hoses down the sieves and the stainless-steel, rimmed table. He then checks the consistency lightly with his finger and, satisfied, re-lights the gas to raise the temperature to 41°C, stirring occasionally. Once the temperature is reached, he lets the mix rest for five minutes before scooping each sieve into the vat and filling it with curds (*cagliata*), pressing down to squeeze out the whey (*siero*). With the bulk of the curds collected, he then uses a jug to scoop the whey, adding through a sieve, to collect the last curds which are added to the 20 sieves of fresh Pecorino cheese. The vat is then scrupulously cleaned in preparation for making Ricotta. Perfect Ricotta is soft, thus the vat must be cleaned thoroughly – if any cheese is left at all, it will make the Ricotta hard. The whey from the table is drained through a sieve and collected, a churn-full at a time, to be poured back into the vat. The gas is lit once again to reach a temperature of 90°C. 4.5 churns or 135 litres result in about 35 round ricotta cheese formers. While waiting for the temperature to be reached, Francesco turns the cheeses out of the sieves and replaces them, bottom up, placing one over another to add weight to assist in expelling the whey. He rinses down the table once more and lays out the ricotta sieves. He checks the temperature then strokes the bottom of the vat with flat tool (*murica*) to assist the curds to rise. He continues to scrape gently back and forth as the temperature is reached. The ricotta continues to rise ... '*Basta che c'è movimento in giu.*' Returning to the fresh Pecorino, Francesco once more switches the lower cheeses with the ones on the top, tapping so the whey drips out. The cheeses have already shrunk. He scrapes a little more, then removes, cleans and rinses the tool – hanging it up to dry. He then rinses a wooden spatula and carefully makes a cross on surface of the ricotta to section it into quarters. Then, with a flat metal ladle, he lifts the curds from the edge and fills the sieves, each one half full, before returning to fill them completely. He takes the ricotta from one quarter only before moving to the next, so each quarter remains undisturbed until lifted out. This insures the ricotta remains as soft as possible. When the 35 sieves are full, he carefully places them in plastic cases which he loads in the back of the car for immediate transportation to a local *agriturismo*. The remaining whey is given to the dogs and pig, but he reminisces that, in his youth, it was boiled up to leave a wax which was made into candles. The pecorino cheeses are removed from their sieves and turned one last time and left standing in twos, the weight of one pressing on the top of the other. This evening, although in the winter months it is usually the next day, the cheeses will be placed in a salt bath prepared with a kilo of rock salt to a litre of water. When freshly made, the mix has to be left for at least 5 days before use, but needs renewing only

once every month. The salt preserves the cheeses and they are left for 12 hours on one side and are then turned and left for a further 12 hours on the other. Finally they are lifted and placed on shelves in the cool cellar for at least 10 days to age before being sold. The cheeses shrink and become harder as they age. (Duff, pers.comm.)

This is a modern description but it gives some sense of the complexity that must be added to the ceramic sieves, dry bones and charcoal that precede it. Much has changed. Francesco is alone in his activity, but connected by a car to the outside world. Plastic sieves have replaced ceramic. Stainless-steel vats (by EU law) have replaced both the ancient large ceramic vessels and the aluminium vessels that succeeded them. However, his work does point to valid points that transcend the centuries: seasonality, much work by night in the summer months, the need for salt, the inter-relationship between dogs and humans, the by-products of his work (although he makes no use of wool), including wax and food for pigs. Above all, his production remains close to subsistence level in monetary terms, is only maintained through various forms of subsidy, and is constrained by various forms of politically imposed laws which he seeks to navigate. Francesco submits samples for chemical assessment by the authorities only when he or his son has milked by hand, ensuring an even greater level of cleanliness and health of each udder. His animals are vulnerable, and even during our short stay one of his young dogs was killed by a snake bite. In the summer months, the sheep graze at night, raising further issues of vulnerability. His pigs, unless care is taken, also interact with the wild boar population of these hills, as we saw in 2012 in the form of a mixed wild-domestic litter of piglets. Carefully considered, these data force us, as prehistorians, to assess the rounded picture of food production. These accounts also provide more direct evidence of local practice that the generalized treatises of Varro, Columella and Cato fail to provide.

An investigation is under way into the ancient transhumant activities of sheep herds around the site of Col di Marzo, using analysis of ratios of oxygen and carbon stable isotopes contained within sequential transverse samples of faunal tooth enamel from the site to elucidate migratory patterns. It is intended that teeth of the red deer (*Cervus elaphus*) found at Col di Marzo will also be sampled in order to provide comparative readings, as this species is likely to have displayed different migratory behaviour from sheep, operating within a home range of many kilometres (Clutton-Brock *et al.* 1982; Stevens *et al.* 2011) but not undertaking long-distance migrations (Steele 2002; Stevens *et al.* 2011). This study follows similar research

using isotope analyses to assess migratory behaviour, for example in late Upper Palaeolithic Italy (Pellegrini *et al.* 2008) and at Neolithic Çatalhöyük, Turkey (Henton *et al.* 2010). It is hoped that this work will shed light on animal mobility in first-millennium BC Italy and aid the understanding of subsistence at Col di Marzo.

A comparative framework

Other sites within the same favourable geology of northeast Etruria and northern Umbria could be approached in a similar way and, in many instances, seem to follow a similar trajectory of occupation and abandonment to that of Col di Marzo. The site of Poggio Civitella near Chiusi has a similar sequence and frontier status. The site was also first occupied in the Final Bronze Age, reoccupied in the Archaic period and substantially defended in the Hellenistic. However, the organic data were not collected. The site of Col di Mori above Gualdo Tadino provides an even closer comparison. Again the site starts in the Final Bronze Age, reoccupied in the sixth century BC and accompanied by a small sanctuary on the upper parts of the site. In common with Col di Marzo, it is, however, in the fourth and third centuries BC that the major occupation occurred. Initial study of the fauna of the site (carbonized seeds were not sampled) suggests a broadly similar pattern of consumption with perhaps a greater emphasis on sheep and goat rather than pig. The more detailed comparison can be made with Poggio Colla in the Mugello, where a greater range of interdisciplinary approaches have been undertaken. In this case the emphasis on sheep and goat is much more noticeable and evidence for wheat, fava beans, chick-peas and grape seeds have been recovered (http://www.oberlin.edu/wwwcomm/ats/atspast/ats0697/ats0697_obies.html). However, at Poggio Colla, it is the ritual focus, that is the *arx* of the site that has been principally investigated, so there is not a precise comparison in terms of function between the two examples.

The Etruscan economy

Visions of the Etruscan economy are dominated by elite production. The complementary information provided here by the implementation of sound, modern interdisciplinary techniques gives a fuller picture of the Etruscan world. This is the complementary approach that Graeme Barker has always advised and inspired, and it takes team work and field science to achieve it. There are still many questions left answered. The Col di Marzo site appears to be located in a very particular political landscape where there is a major

urban centre (Perugia) and a series of smaller village-level nucleated settlements, but neither the political security nor the intensity of exploitation to produce a rural landscape of farmsteads. This latter ruralized type of political landscape only appeared with the Roman period, whereas it had already occurred in various forms in the Etruscan city landscapes of the coast many centuries before. The detailed study of the Etruscan farmstead is still awaited.

Acknowledgements

The chapter was written by Simon Stoddart with support from Caroline Malone, employing evidence provided by Letizia Cecarelli (ceramics and dating), Finbar McCormick (animal bone), Jacob Morales (carbonized seeds), Stephen Armstrong (midden report), Jennifer Bates (sampling and carbonized seeds), Jeremy Bennett (site survey), Jamie Cameron (stable isotopes), Gabriele Cifani (the original visit to the site), Sheira Cohen (drains), Patricia Duff (ethnographic interview), Tiomoid Foley (iron nails), Hettie Hill (digitization), Laura Mattacchioni (freshwater molluscs) and David Redhouse (site survey). We would like to thank the Provincia di Perugia, the Comuni of Gubbio and Perugia, the British Academy, the Browning Foundation (through Magdalene College, Cambridge), the Thriplow Trust, the McDonald Institute of Cambridge, the Humanities Grant of the University of Cambridge, Queen's University Belfast, the European Commission, Fondazione Gaslini and the Soprintendenza per i Beni Archeologici dell'Umbria for various forms of support.

References

- Barker, G., 1988. Archaeology and the Etruscan countryside. *Antiquity* 62, 772–85.
- Barker, G. & A. Grant, 1991. Ancient and modern pastoralism in central Italy: an interdisciplinary study in the Cicolano mountains. *Papers of the British School at Rome* 59, 15–88.
- Barker, G. & T. Rasmussen, 1988. The archaeology of an etruscan polis: a preliminary report on the Tuscania project. 1986 and 1987 seasons. *Papers of the British School at Rome* 56, 25–42.
- Bartoloni, G., 2009. *L'abitato etrusco di Veio: ricerche dell'Università di Roma La Sapienza*. Rome: Iuno.
- Bartoloni, G. & P. Bocci Pacini, 2002. Roselle: una rilettura dei dati di scavo nell'abitato arcaico, in *Città e Territorio in Etruria. Per una Definizione di Città nell'Etruria Settentrionale*, eds. M. Manganelli & E. Pacciani. Colle Val d'Elsa: Grafiche Boccacci, 187–212.
- Bonghi Jovino, M., 2010. The Tarquinia Project: a summary of 25 years of excavation. *American Journal of Archaeology* 114, 161–80.
- Bonomi Ponzi, L., 2010. Terni, Gualdo Tadino, Colfiorito: tre casi emblematici dell'Umbria antica, in *L'Étrurie et l'Ombrie avant Rome. Cité et Territoire. Actes du Colloque International Louvain-la-Neuve Halles Universitaires, Sénat Académique 13–14 février 2004*, ed. P. Fontaine. Rome: Belgisch Historisch Instituut te Rome, 165–93.
- Carandini, A., 1985. Premessa., in *La Romanizzazione dell'Etruria: Il Territorio di Vulci*, ed. A. Carandini. Milano: Electa – Regione Toscana, 21–4.

- Clutton-Brock, T.H., F.E. Guinness & S.D. Albon, 1982. *Red Deer: Behaviour and Ecology of Two Sexes*. Edinburgh: Edinburgh University Press.
- Colonna, G. (ed.), 1988–9. *Pyrgi. Scavi del Santuario Etrusco*. Rome: Accademia Nazionale dei Lincei.
- De Grossi Mazzorin, J. & C. Cucinotta, 2009. Analisi archeozoologica di alcuni contesti della città antica di Veio, in *L'Abitato Etrusco di Veio. Ricerche dell'Università di Roma La Sapienza. I. Cisterne, Pozzi e Fosse*, ed. G. Bartoloni. Rome: Edizioni Iuno, 125–36.
- di Gennaro, F., O. Cerasuolo, C. Colonna, U. Rajala, S.K.F. Stoddart & N. Whitehead, 2002. Recent research on the city and territory of Nepi. *Papers of the British School at Rome* 70, 29–77.
- Donati, L. & L. Cappuccini, 2008. Poggio Civitella: la fortezza ellenistica e le testimonianze culturali del sito, in *La Città Murata in Etruria. Atti del XXV Convegno di Studi Etruschi ed Italici. Chianciano Terme. Sarteano. Chiusi. 30 Marzo–3 Aprile 2005*, ed. G. Camporeale. Pisa/Rome: Fabrizio Serra Editore, 221–44.
- Enei, F., 2001. *Progetto Ager Caerentanus. Il Littorale di Alsium. Ricognizioni Archeologiche nel Territorio di Ladispoli, Cerveteri e Fiumicino*. Ladispoli: Comune di Ladispoli – Regione Lazio.
- Henton, E., W. Meier-Augenstein & H.F. Kemp, 2010. The use of oxygen isotopes in sheep molars to investigate past herding practices at the Neolithic settlement of Çatalhöyük, central Anatolia. *Archaeometry*, 52(3), 429–49.
- Grant, A., T. Rasmussen & G. Barker, 1993. Tuscania: excavations of an Etruscan rural building. *Studi Etruschi* 58, 566–70.
- Maggiani, A. & M. A. Rizzo, 2005. Cerveteri. Le Campagne di scavo in loc. Vigna Parrocchiale e S. Antonio, in *Dinamiche di Sviluppo delle Città nell'Etruria Meridionale. Veio, Caere, Tarquinia, Vulci. Atti del XXIII Convegno di Studi Etruschi ed Italici, Roma, Veio, Cerveteri/Pyrgi, Tarquinia, Tuscania, Vulci, Viterbo, 1–6 ottobre 2001. Volume 1*, ed. O. Paoletti. Pisa/Rome: Istituti editoriali e poligrafici internazionali, 175–83.
- Matteini Chiari, M., 1979–80. La ricognizione per un'ipotesi di definizione territoriale: il territorio eugubino in età preromana. *Annali della facoltà di Lettere e Filosofia. Università degli Studi di Perugia* 17, 211–21.
- McVicar, J., C. Backway, G. Clark & R. Housley, 1994. Agriculture, in *Territory, Time and State. The Archaeological Development of the Gubbio Basin*, eds. C. Malone & S. Stoddart. Cambridge: Cambridge University Press, 94–106.
- Murray Threipland, L. & M. Torelli, 1970. A semisubterranean Etruscan building in the Casale Pian Roseto (Veii) area. *Papers of the British School at Rome* 38, 62–121.
- Paolucci, G., 1993. L'insediamento tardo etrusco di Poggio Bacherina a Chianciano Terme, in *La Civiltà di Chiusi e del suo Territorio. Atti del XVII Convegno di Studi Etruschi ed Italici, Chianciano Terme, 28 maggio–1 giugno 1989*, eds. G. Maetzke & L. Tamagno Perna. Firenze: L.S. Olschki, 421–37.
- Patterson, H., H. di Giuseppe & R. Witcher, 2004. Three South Etruria 'crises': first results of the Tiber Valley Project. *Papers of the British School at Rome* 72, 1–36.
- Pellegrini, M., R.E. Donahue, C. Chenery, et al., 2008. Faunal migration in late-glacial central Italy: implications for human resource exploitation. *Rapid Communications in Mass Spectrometry*, 22, 1714–26.
- Perkins, P. & I. Attolini, 1992. An Etruscan farm at Podere Tartuccchino. *Papers of the British School at Rome* 60, 71–134.
- Potter, T.W., 1979. *The Changing Landscape of South Etruria*. London: P. Elek.
- Scheffer, C., 1981. Acquarossa. Cooking and cooking stands in Italy. 1400–400 B.C. *Acta Instituti Romani Regni Sueciae* 40 38(2,1), 9–114.
- Steele, T.E., 2002. Red deer: Their ecology and how they were hunted by late Pleistocene hominids in western Europe. Unpublished Ph.D thesis, Stanford University, USA.
- Stevens, R.E., M. Balasse & T.C. O'Connell, 2011. Intra-tooth oxygen isotope variation in a known population of red deer: implications for past climate and seasonality reconstructions. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 301, 64–74.
- Stoddart, S., M. Baroni, L. Ceccarelli, et al., 2012. Opening the frontier: the Gubbio–Perugia frontier in the course of history. *Papers of the British School at Rome* 80, 257–94.
- Torelli, M., 1977. Il santuario greco di Gravisca. *Parola del Passato* 32, 398–458.
- Torelli, M., 2001. Stata Mater in Agro Veientano. La 'riscoverta' di un santuario rurale veiente in loc. Casale Pian Roseto. *Studi Etruschi* 64, 117–34.
- Trentacoste, A., 2013. Faunal remains from the Etruscan sanctuary at Poggio Colla (Vicchio di Mugello). *Etruscan Studies* 16(1), 75–105.
- Wikander, Ö. & P. Roos (eds.), 1986. *Architettura Etrusca nel Viterbese. Ricerche Svedesi a San Giovenale e Acquarossa 1956–1986*. (Catalogo della mostra). Rome: De Luca.
- Zifferero, A., G. Pieragnoli, C. Sanchirico & G. Tofani, 2009. Un sito artigianale con anfore da trasporto tipo Py 3B a Marsiliana d'Albegna (Manciano, GR). *Officina Etruscologia. Semestrale d'archeologia (I mestieri del fuoco)* 1, 101–26.

Published by:

McDonald Institute for Archaeological Research
University of Cambridge
Downing Street
Cambridge, UK
CB2 3ER
(0)(1223) 333538
(0)(1223) 339336 (Production Office)
(0)(1223) 333536 (FAX)
eaj31@cam.ac.uk
www.mcdonald.cam.ac.uk

Distributed by Oxbow Books

United Kingdom: Oxbow Books, 10 Hythe Bridge Street, Oxford, OX1 2EW, UK.
Tel: (0)(1865) 241249; Fax: (0)(1865) 794449; www.oxbowbooks.com
USA: Casemate Academic, P.O. Box 511, Oakville, CT 06779, USA.
Tel: 860-945-9329; Fax: 860-945-9468

ISBN: 978-1-902937-73-1
ISSN: 1363-1349 (McDonald Institute)

© 2014 McDonald Institute for Archaeological Research

All rights reserved. No parts of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the McDonald Institute for Archaeological Research.

Cover design by Dora Kemp.

Cover image: An archway within Gasr ash-Shahdiyn, a Late Roman fortress located on the main road between Al-Baida and Al-Maj, 4.5 km southwest of the Wadi Kuf bridge, Libya. (Photograph: Ryan Rabett, 2008; details: Paul Bennett).

Edited for the Institute by James Barrett (*Series Editor*) and Anne Chippindale.

Printed and bound by Short Run Press, Bittern Rd, Sowton Industrial Estate, Exeter, EX2 7LW, UK.